



October 12, 2020

CITY OF ABERDEEN

Department of Public Works Water Meter Requirements Policy and Procedures

Purpose

The City's Department of Public Works requires that all properties (commercial, residential, non-profit, and governmental) to be metered when provided water from the public water system from the City of Aberdeen. This policy defines the Department of Public Works procedures for the installation of water meters for residential, commercial, non-profit and governmental agencies by individual contractors or builders. This policy and procedure, effective the date of this notice, requires all contractors or builders installing new water meters to comply with this policy and procedures.

General Procedures

1. The Department of Public Works requires a metered connection from the public water system to the property it services to measure water consumption and bill for services rendered by the City. This use of water shall include all domestic, fire, and irrigation uses as requested by the property owner.
2. A professional engineer licensed in the state of Maryland, designated by the owner or the developer, shall certify the water capacity requirement of the property for which public water is requested from the City. The engineer shall provide either a) the required daily average domestic usage through industry standard calculations, or b) minimum water usage utilizing the latest edition of Flow Calculation Tables from the Maryland Department of the Environment Water and Wastewater Supply Capacity Management Plans. The engineer for the owner or developer shall be responsible for any errors or omissions in the calculations.
3. The engineer shall provide a summary letter addressed to the Department of Public Works to include the "Type of Establishment" and gallons per person per day (unless otherwise noted) for average and maximum flows for both water and wastewater. This letter shall be signed and sealed by a licensed engineer and submitted to the City either during the application for a building permit for single residential lot or at the time of application for a subdivision plan to the Planning Commission. The water usages summary tables shall be shown on the signed plans.
4. Upon approval by the City Council for a Subdivision Plan or approval by the Department of Planning and Zoning for a building permit, the Department of Public Works shall issue a Capacity Commitment Form for the site.

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Hydrant Fire Flow Procedures

1. The engineer for the Owner/Developer shall submit a Hydrant Flow Test request to the City Engineer at least ten (10) business days from the desired date. The engineer shall submit a letter with a proposed sketch of the location of the testing, date of test, and number of hydrants to be tested. If the request is for an EXISTING building, please include a Google Map of the property. If the request is for a NEW building, please include a site plan indicating where the service will connect to the main along with a Google map image. Information will be submitted either by signed PDF emailed to DPW@aberdeenmd.gov, mail, or hand delivered to City Hall. The City Engineer may be reached at 410-272-1600 x 222.
2. The City Engineer shall provide a response within two (2) business days of receipt of the request whether the proposed date is acceptable. The City Engineer shall be the primary focal point between the Engineer and City staff in coordinating the City's response to the Engineer's request. The engineer may communicate via email or phone after the initial written request should the date or time need to be adjusted in response to either party. The City will make all attempts to meet the Developer's request on the date of the test but reserves the right to reschedule if a departmental emergency exists and staff are unable to support the test. Emergencies may include snow or ice events, water main breaks, or other natural disasters.
3. The engineer is responsible to secure a responsible firm that is knowledgeable and has practice in conducting hydrant flow test. The firm shall test the hydrant according to *NFPA 291 (Latest edition): Recommended Practice for Fire Flow Testing and Marking of Hydrants*. The testing firm shall provide all testing equipment necessary to include flow pressure gauges, testing devices, stop watches, discharge hoses and water diffuser or sock, de-chlorination tablets, etc. All hydrant testing is recommended to occur when the average ambient air temperature is thirty-five (35) degrees Fahrenheit and rising. Approval for testing when temperatures do not meet this requirement will be at the discretion of the Director of Public Works or designated alternate. The Firm shall discharge all water in a manner that does not cause property damage (public or private) or risk public safety i.e. hazards for traffic.
4. The engineer/hydrant testing firm shall not proceed with the test until City Staff is on site and authorizes the commencing of the test. City staff will monitor the test to ensure safe practices in the opening/closing of the hydrant at the beginning and end of the test. City staff shall not be responsible for any hydrant flow measurements. City staff shall provide general water system characteristics at the time of the test i.e. hydrant number, water zone, water elevation in the towers, pump station (on/off). The testing firm is responsible for any damage that may occur or be attributed to the fire flow testing procedures.

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5. The City shall charge a flat rate of \$300.00 for water usage and staff support during the hydrant flow test and Staff time in monitoring the contractor. This rate incorporates the support of city staff needed to monitor the test, provide data, and payment of water used during the test. This rate is also based on a single point of measurement in the distribution system to support the engineer that is required to design the considered site. If a hydrant flow test falls outside of regular hours the flat rate will be charged at one and one-half (1.5) times. Regular hours are from 7:30 a.m. to 2:30 p.m., Monday through Friday, City observed holidays excluded. A bill shall be submitted by the City to the Engineer within seven (7) days of the completion of the test.

Residential Meter Procedures

1. The Engineer shall design the connection from the City's main to meter setter utilizing Meter Detail (<https://www.aberdeenmd.gov/public-works/pages/public-works-policies>) for Standard Service Connection with a meter Vault for residential services. The Engineer shall reference Harford County, City of Aberdeen Addendum, Approved List of Suppliers and Materials for Water and Sewer Construction. This Addendum is located on the City's Department of Public Works website under Engineering Documents. The meter box shall be located a minimum of six (6) inches behind the back of the curb or sidewalk and no further than twelve (12) inches beyond the back of the curb or sidewalk. The water meter mounting surface shall be located no less than eighteen (18) inches and no more than twenty-one (21) inches below lid.
2. The Engineer shall submit a copy of the hydrant test with a Residential Meter Application located at <https://www.aberdeenmd.gov/public-works/pages/public-works-policies> at the time of the building permit. The application shall be signed and sealed by a licensed engineer designating the water meter size for the lot. The engineer for the Owner/Developer shall determine the number of meter(s) and meter size required to meet the needs of the property. The engineer is responsible for any errors or omission in not properly sizing the meter or specifying the correct meter size or incorrectly determining the number of meters required.
3. The City specifies Neptune "Mach10" E-Coder/R900i water meters in ¾-inch, 1-inch for residential houses. Engineers may view additional data for calculating meter size at: <https://www.neptunetg.com/products/watermeters/residential/mach10/>. If the residential unit requires a 1-½-inch meter to meet fire flow requirements, please contact the department of public works for additional information as it relates to the meter vault. The meter specified will be an Octave Ultrasonic Meter by Master Meter. Engineers may view specifications at <https://www.mastermeter.com/products/octave-ultrasonic-meter/> for further characteristics in determining appropriate meter size. A Neptune R900 Meter Interface Unit is required to adapt the Master Meter "Octave" into our meter reading equipment. However, a meter interface unit is NOT required if a Neptune Meter is used (any size less than 1-½-inch).
4. The owner shall submit a Residential Meter Application that is signed and sealed by a Professional Engineer that will certify the water meter size required for the property. The

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developer/owner, or engineer shall issue a certified check, money order, or cash for the full amount of the meter plus fifteen percent (15%) administration fee to the Permit Department. Payment for meters will be collected at the time of Building Permit Release. No meters will be ordered until full payment is received. Typical delivery time could be up to eight (8) weeks depending on size and availability of meter. Upon payment receipt, Public Works Department will order the specified water meter. After receipt of the meter from the City's vendor, staff will contact the applicant to arrange for installation.

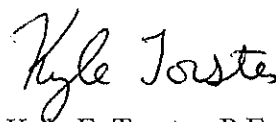
5. Installation of the residential water line from the City's main, meter lid, meter cock, and setter shall be done by a licensed plumber or utility contractor. Upon completion by the contractor, the City Inspector shall approve the work prior to Maintenance Crews setting the water meter in place. DPW staff will install the meter once all work by the developer/owner is complete for the meter setter. Installation of the meter will be done by City Maintenance Staff and will take place between the hours of 7:30 a.m. to 2:30 p.m. Monday through Friday, City observed holidays excluded.
6. If a water meter is damaged or destroyed during the construction process, it is the contractor's or builder's responsibility to purchase a new meter at their expense.

Commercial Meter Procedures

1. The Owner/Developer's Engineer shall design the connection from the City's main to the water meter vault utilizing Harford County Standard Water Details using the standard details (W-23, W-24a, or W-25) located at <https://www.aberdeenmd.gov/public-works/pages/public-works-policies> for Standard Service Connection with a meter vault for commercial services. As an alternative to an exterior meter vault, the City may authorize the placement of the commercial water meter within a mechanical room that will allow City staff designated controlled access 24 hours/day and 365 days a year to service the City's meter. The owner will sign a Commercial Water Meter License Agreement if the water meter vault is not used on the property. Contact the City Engineer for further information. The Engineer shall reference the Harford County, City of Aberdeen Addendum, for Approved List of Suppliers and Materials for Water and Sewer Construction dated November 11, 2018. This Addendum document is located on the City's Department of Public Works web site under Engineering Documents. Locations of the water meters, vaults, and associated easements will be shown on the approved Public Water and Sewer Plans.
2. The Owner/Developer's Engineer shall submit a copy of the hydrant test with a Commercial Meter Application located at <https://www.aberdeenmd.gov/public-works/pages/public-works-policies> the time of the building permit. The engineer for the Owner/Developer shall determine the number of meter(s) and meter size required to meet the needs of the property. The application shall be signed and sealed by a licensed engineer designating the number and size of domestic meters, fire flow meters, and/or irrigation use or any combination thereof to meter the property. The engineer is responsible for any errors or omissions in not properly sizing the meter or specifying the correct meter size.

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3. Effective January 2018, the Department of Public Works now specifies Octave Ultrasonic Meter by Master Meter for large water meters. A large meter is defined as any water service line from 1-1/2 inch to 12-inch diameter. Engineers may view specifications at <https://www.mastermeter.com/products/octave-ultrasonic-meter/> for further characteristics in determining appropriate meter sizing. A Neptune R900 Meter Interface Unit is required to adapt the Master Meter "Octave" into our meter reading equipment. Please contact the Permit Department for pricing once the size is determined.
4. The owner shall submit a Commercial Meter Application that is signed and sealed by a Professional Engineer certifying the water meter size required for the property. The developer/owner, or engineer shall issue a certified check, money order, or cash for the full amount of the meters plus fifteen (15%) administration fee to the Permit Department. Payment for meters will be collected at the time of Building Permit Release. No meters will be ordered until full payment is received. Typical delivery time could be up to eight (8) weeks depending on size and availability of meter. Upon payment receipt, Public Works Department will order the specified water meter. After receipt of the meter from the City's vendor, staff will contact the applicant for pickup. Water Meters can be picked up between the hours of 7:30 a.m. to 2:30 p.m. Monday through Friday, City observed holidays excluded, at the City Maintenance Shop located at 341 Michaels Lane, Aberdeen, phone number 410-272-1414.
5. If a water meter is damaged or destroyed during the installation or construction process, it is the contractor's or builder's responsibility to purchase a new meter at their expense.



Kyle E. Torster, P.E.
Director of Public Works

Cc: Finance, Permits